

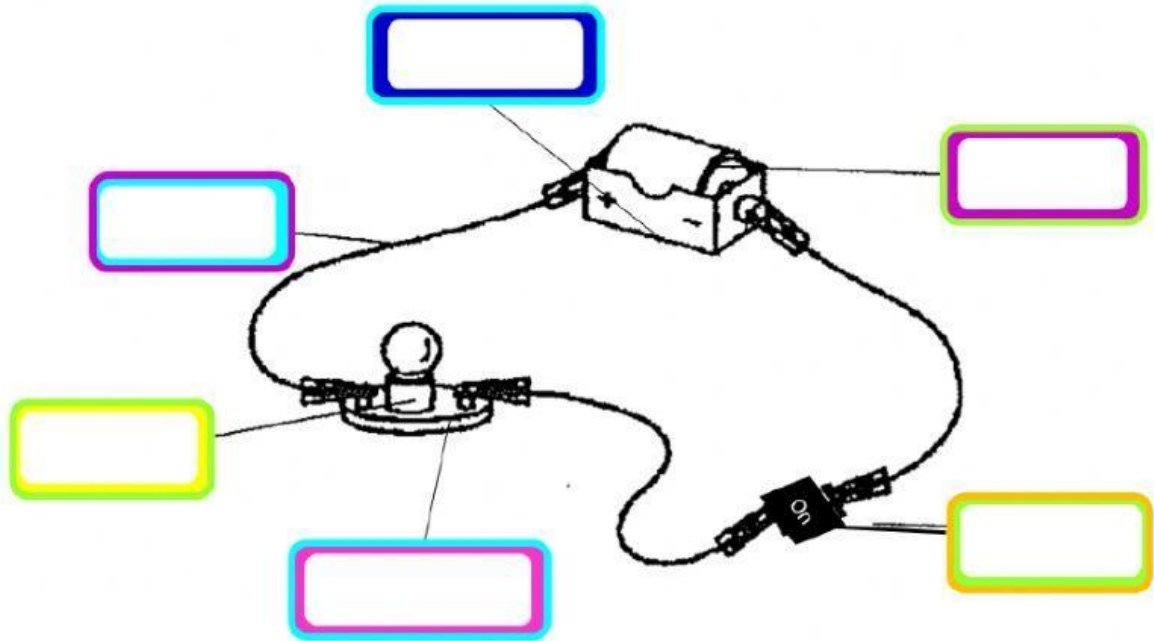
Name: \_\_\_\_\_

**SCIENCE** Class 5CI\_\_\_\_\_

Date: \_\_\_\_\_

Topics: Unit 5 Electrical Conductors and Insulators

1. Look at circuit below and label its components.

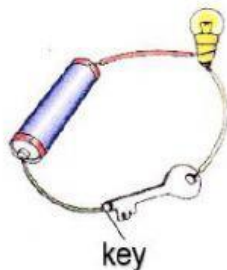


2. Which circuits used conductor or insulator materials.  
Match.



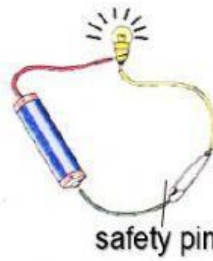
**conductor**

**insulator**



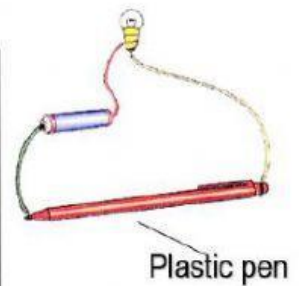
**conductor**

**insulator**



**conductor**

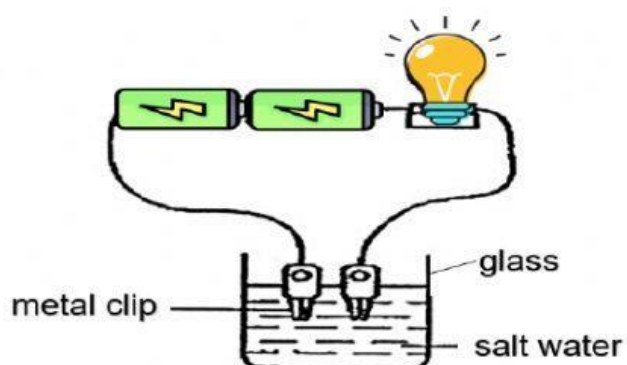
**insulator**



**conductor**

**insulator**

3. Jansen sets up an experiment as shown below.  
When the metal clips are soaked in salt water, he observed that the **bulb lit up**.

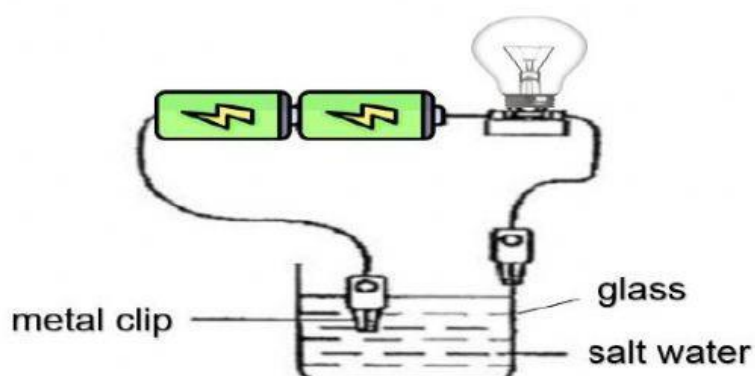


Based on Jansen's observation, what can he say about the water?

**01** Saltwater is conductor. ►

**02** Saltwater is insulator. ►

Jansen connected one of the metal clips to the glass as shown below.

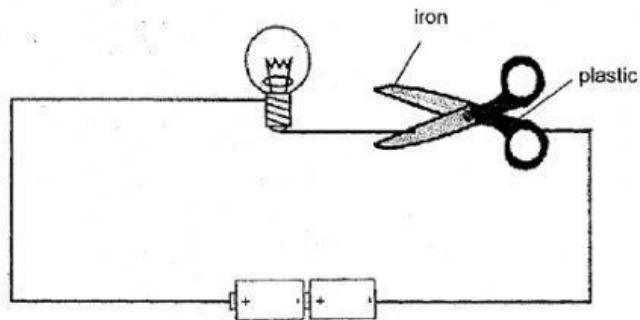


Would the bulb light up?

**YES**

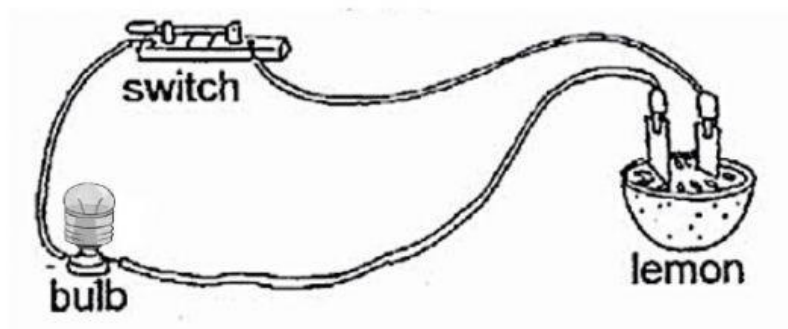
**NO**

4. Will the bulb light up?



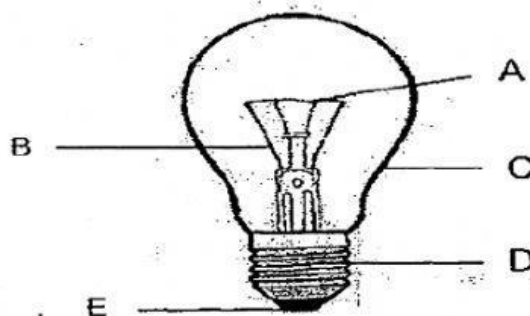
|     |
|-----|
| Yes |
| No  |

5. Will the bulb light up?



|     |
|-----|
| Yes |
| No  |

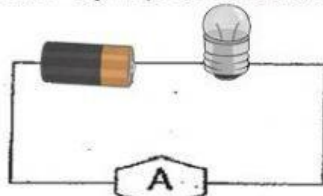
6. The diagram below shows the parts of a bulb.



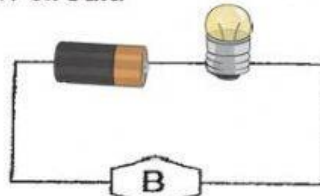
Which of the following best describe the parts of the bulb?

|     | Conductors of electricity | Insulators of electricity |
|-----|---------------------------|---------------------------|
| (1) | A, D, E                   | B, C                      |
| (2) | A, B, D, E                | C                         |
| (3) | A, B, C                   | D, E                      |
| (4) | C, D, E                   | A, B                      |

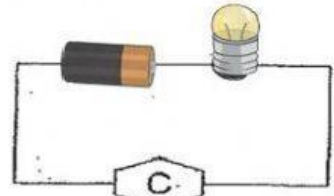
- 7., Kelly was given three circuits X, Y and Z as shown below. The bulbs and batteries in all the circuits are new and identical. Different objects, A, B and C, are connected in each circuit.



Circuit X



Circuit Y



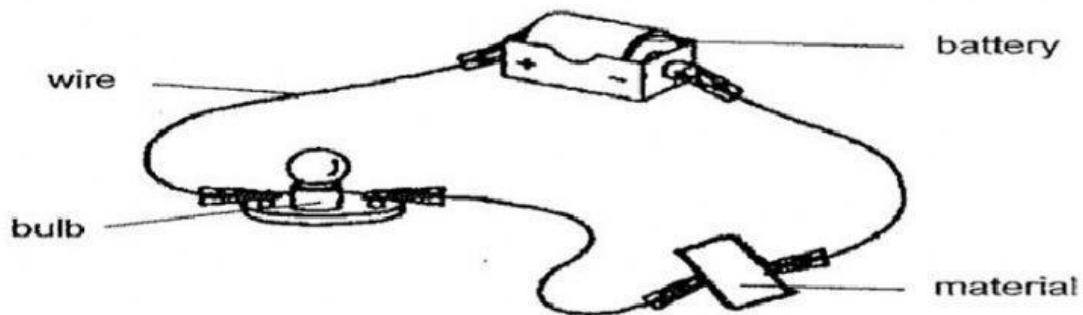
Circuit Z

Kelly made the following observations in her notebook.

- The bulb in circuit X did not light up.
- The bulbs in circuits Y and Z lighted up.
- The bulb in circuit Y was brighter than the bulb in circuit Z.

Which of the following is possible?

- (1) Object A is made of metal.
  - (2) Object C is another light bulb.
  - (3) Object B is an electrical insulator.
  - (4) Objects B and C are identical electrical wires.
8. Jonas set up a circuit tester as shown in the diagram below. He wanted to find out if the materials, P, Q and R, could conduct electricity.



The results of the test were as follows:

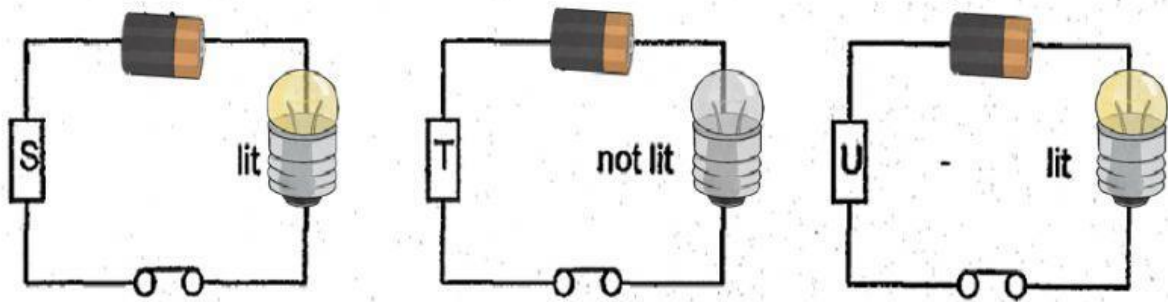
| Material | Did the bulb light up? |
|----------|------------------------|
| P        | Yes                    |
| Q        | No                     |
| R        | Yes                    |

Which one of the following could represent materials P, Q and R?

|     | P      | Q         | R         |
|-----|--------|-----------|-----------|
| (1) | cotton | plastic   | gold      |
| (2) | gold   | wood      | aluminium |
| (3) | glass  | aluminium | copper    |
| (4) | copper | rubber    | cotton    |

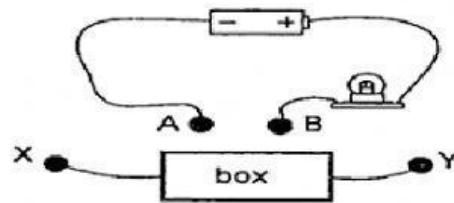


9. The diagram below shows what happens when different materials S, T and U are each connected in a separate circuit.



Which material is not an electric conductor?

10. Study the circuit below carefully.



When the wires X and Y of a box are connected to A and B of the circuit respectively the bulb lights up.  
Which one of the following boxes is used?

